U.S. Serial No.: 10/605,035 Filed: September 3, 2003

AMENDMENT AND RESPONSE

TO OFFICE ACTION

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1-2. (Cancelled).
- 3. (Currently Amended) The coated fuel cell bipolar plate of claim 1 A coated fuel cell bipolar plate comprising: a metal plate; an electrically conductive corrosion resistant coating formed over the metal plate, the coating including a top surface and porosities; and an electrically conductive overcoating formed over the electrically conductive corrosion resistant coating, the overcoating sealing some or all of the porosities at the top surface of the electrically conductive corrosion resistant coating, wherein the electrically conductive corrosion resistant coating has a plurality of layers.
- 4. (Currently Amended) The coated fuel cell bipolar plate of elaim 1 claim 3, wherein the electrically conductive corrosion resistant coating includes titanium.
- 5. (Currently Amended) The coated fuel cell bipolar plate of elaim-1 claim 3, wherein the electrically conductive corrosion resistant coating includes titanium nitride.
- 6. (Currently Amended) The coated fuel cell bipolar plate of elaim 1 claim 3, wherein the electrically conductive corrosion resistant coating includes titanium aluminum nitride.
- 7. (Currently Amended) The coated fuel cell bipolar plate of elaim 1 claim 3, wherein the electrically conductive corrosion resistant coating includes: a sub-layer coated over the outer surface; and a layer coated over the sub-layer; wherein the sub-layer promotes adhesion of the layer to the sub-layer.
- 8. (Original) The coated fuel cell bipolar plate of claim 7, wherein the sub-layer includes titanium.
- 9. (Original) The coated fuel cell bipolar plate of claim 7, wherein the sub-layer includes stainless steel.

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10. (Original) The coated fuel cell bipolar plate of claim 7, wherein the layer includes titanium aluminum nitride.

- 11. (Currently Amended) The coated fuel cell bipolar plate of claim 1 claim 3, wherein the overcoating is hydrophobic.
- 12. (Currently Amended) The coated fuel cell bipolar plate of claim 1 claim 3, wherein the overcoating includes amorphous graphite.
- 13. (Currently Amended) The coated fuel cell bipolar plate of claim 1 A coated fuel cell bipolar plate comprising: a metal plate; an electrically conductive corrosion resistant coating formed over the metal plate, the coating including a top surface and porosities; and an electrically conductive overcoating formed over the electrically conductive corrosion resistant coating, the overcoating sealing some or all of the porosities at the top surface of the electrically conductive corrosion resistant coating, wherein the overcoating includes: a first layer of transition metal coated over the coating; and a second layer of amorphous graphite coated over the first layer.
- 14. (Original) The coated fuel cell bipolar plate of claim 13, wherein the transition metal includes chromium, titanium, nickel, iron, or cobalt.
- 15. (Currently Amended) A coated fuel cell bipolar plate comprising: a metal plate; an electrically conductive corrosion resistant coating formed over the metal plate, the electrically conductive corrosion resistant coating including a top surface and porosities; and an <u>anodized or oxidized</u> overcoating formed over the electrically conductive corrosion resistant coating, the overcoating being primarily localized on <u>each of</u> the porosities at the top surface as [[an]] <u>discrete</u> amorphous <u>structures</u>.
- 16. (Original) The coated fuel cell bipolar plate of claim 15, wherein the metal plate includes aluminum.
- 17. (Original) The coated fuel cell bipolar plate of claim 15, wherein the coating has a plurality of layers.
- 18. (Original) The coated fuel cell bipolar plate of claim 15, wherein the coating includes titanium.

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19. (Original) The coated fuel cell bipolar plate of claim 15, wherein the coating includes

titanium nitride.

20. (Original) The coated fuel cell bipolar plate of claim 15, wherein the coating includes

titanium aluminum nitride.

21. (Original) The coated fuel cell bipolar plate of claim 15, wherein the coating

includes: a sub-layer coated over the outer surface; and a layer coated over the sub-layer; wherein

the sub-layer promotes adhesion of the layer to the sub-layer.

22. (Original) The coated fuel cell bipolar plate of claim 21, wherein the sub-layer

includes titanium.

23. (Original) The coated fuel cell bipolar plate of claim 21, wherein the sub-layer

includes stainless steel.

24. (Original) The coated fuel cell bipolar plate of claim 21, wherein the layer includes

titanium aluminum nitride.

25-26. (Cancelled).

27. (Currently Amended) The coated fuel cell bipolar plate of claim 26, wherein the

oxide comprises aluminum oxide.

28. (Original) The coated fuel cell bipolar plate of claim 15, wherein the overcoating is

sufficiently electrically conductive to permit an electrical charge to pass through the overcoating

to the coating.

29. (Original) The coated fuel cell bipolar plate of claim 15, wherein the overcoating

comprises a suboxide.

30. (Original) The coated fuel cell bipolar plate of claim 29, wherein the suboxide

comprises a suboxide of titanium.

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